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ABSTRACT

Recent national surveys have found marked increases in the use of illicit drugs and alcohol among adolescents. To investigate differential prediction of alcohol versus hard drug use amoung youths, 6% of the youths, aged 10-19, from a Pennsylvania county school system (N=1,689) were assessed on the HEW Community Youth Program Impact Scales. The 12 scales assess social-psychological youth development dynamics, e.g., powerlessness vs. control, perceived negative/positive labeling, perceived access/lack of access to educational roles, self esteem, and parental rejection. An analysis of the results showed peer relationship variables were most predictive for alcohol use levels, and youth-adult disaffiliation variables were most predictive for hard drug use levels. Youth perceived access to educational and occupational roles did not predict either alcohol or hard drug use levels. Moderate or high frequency alcohol use was reported in 37.4 percent of the sample, while 1.8 percent of the sample reported hard drug use. (Difficulties with 96 percent false positives for high frequency hard drug use are discussed and nine tables of data analyses are appended.) (Author/BL)

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Differential Prediction of Alcohol vs. Hard Drug Use Levels in a General Youth Sample via the HEW Youth Development Model's Community youth program Impact Scales, Age, and Sex

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Abstract

Differential prediction of alcohol vs. hard drug use levels in a 6% systematic general youth sample of 1,689 subjects (mostly Caucasian), ages 10 to 19 years old, was studied by way of stepwise multiple discriminant function analysis applied to HEW Youth Development Model Community Youth Program Impact Scales, age, and sex vis-a'-vis self-reported alcohol use levels and self-reported hard drug use levels. Peer relationship variables were most predictive for alcohol use levels, and youth - adult disaffiliation variables were most predictive for hard drug use levels. Youth perceived access to educational and occupational roles were predictive of neither alcohol nor hard drug use levels. 37.4% and 1.8% of the sample admitted to moderate or high frequency alcohol and hard drug use respectively. 59.1% and 74.3% of the youth could be correctly classified via discriminative variables with respect to alcohol use level and hard drug use level respectively. Difficulties with 96% false positives for high frequency hard drug use are discussed.

Differential Prediction of Alcohol vs. Hard Drug Use Levels in a General Youth Sample via the HEW Youth Development Model's Community Youth Program Impact Scales, Age, and Sex

The problem of drug abuse in U.S. society, both in the general population and among youth in particular, has become so commonly acknowledged and so constantly alarming as to require little documentation for purposes of the present article. For example, in a national survey studying the changing patterns of delinquent behavior among U.S. youth, ages 13 to 18 years old, over the 1967 - 1972 period, Gold and Reimer (1975) found a marked increase in illicit drug use, primarily marijuana, compared to other forms of delinquency. The authors believed the rise in drug use and abuse relative to other types of delinquency to be a function of a greater acceptance of drug use both by parents and by peers. Since then, alcohol abuse by youth has become the focus of considerable attention. Consumer Reports (Brecher, 1972) advocated that alcohol (and nicotine) be recognized as most dangerous drugs and that they be classified as such. Alcohol was included in a study on preenlistment drug experiences of U.S. Navy women and men (Olson & Thomas, 1978) and has been the focus of studies regarding the alcohol habits of youth (Nuttall & Nuttall, 1978; van Houton, 1978; and Spencer et. al., 1980). At least one study (Nuttall & Nuttall, 1978) examined differences between heroin and alcohol use among youth and found that predictive patterns differed for heroin and alcohol use. The purpose of the present research was to investigate differential prediction of alcohol vs. hard drug use in a general youth sample via the HEW Youth Development Model's Community Program Impact Scales (Elliott et. al., Note 1).

The HEW National Strategy for Youth Development Model (Elliott et. al., Note 1) was promoted as a community-based planning and procedural tool designed to enhance positive youth development and prevent delinquency through a process of youth needs assessment, development of needs targeted programs, and program impact evaluation. The National Strategy is unique in that it is predicated on a social-psychological model of youth development and contains requisite measures of the model's components. Of the many assessment tools employed including a problems and needs section, and a series of Impact Scales , it is the Impact Scales that most directly reflect the model's components in psychometric form.

Acceptable reliabilities (Brennan & Huizinga, Note 2), substantial predictive validity of Impact Scales with respect to Self-Reported Delinquency (SRD) on the order of $\underline{R} \approx .70$ (Brennan & Huizinga, Note 2; and Truckenmiller, 1982a), as well as consistent correlational structural validity (Brennan & Huizinga, Note 2; and Truckenmiller, 1978, 1982b) have been found for the Impact Scales. Impact Scales may also be highly predictive of variation for individual SRD items. For example, scores on a vandalism item and on a wanton assaultiveness item can be significantly predicted from Impact Scales, age, and sex (Truckenmiller, 1983a, 1983b).

The HEW model of social-psychological youth development dynamics is one wherein mutually reinforcing components press toward and interact with positive youth development on the one hand, or delinquency on the other. In a positive direction, a sense of general societal belonging, youth perceived positive peer group pressure, youth perceived posiitve labeling by significant others, and youth perceived access to desirable social roles,

are all synergistically reinforcing with positive behavior. In the negative direction, synergistic interactions press towards delinquent behavior.

Twelve Impact Scales measure these major components. The alienation component is tapped by Impact Scales Normlessness vs. Conformity, Powerlessness vs. Control, and Societal Estrangement vs. Societal Integration. Youth perceived negative labeling by others is reflected by Impact Scales: Youth Perceived Negative/Positive Labeling by Parents; by Teachers; and by Peers. Another Impact Scale, Parental Rejection, might logically be grouped here. Impact Scales tapping youth perceived access to desirable social roles include: Youth Perceived Access/Lack of Access to Educational Roles; and Youth Perceived Access/Lack of Access to Occupational Roles. The three remaining Impact Scales are: Normative Peer Group Pressure Towards Delinquency, Self-Esteem, and Self-Reported Delinquency (SRD). Table 1 lists these scales. Since age and sex have been found the most SRD predictive of demographic variables used in the HEW model (Fink & Truckenmiller, Note 6), these too were included as predictor variables in the present study.

Insert Table 1 about here

The SRD scale contains several items pertaining to drug use: "Used marijuana", "Sniffed glue or inhaled toxic (dangerous) fumes", "Used hard drugs", and "Used alcohol." All items were endorsed "Never", "Once or Twice", "Several Times", or "Very Often." Since differential predictive

patterns have been found for alcohol vs. heroin (a hard drug) use by youth, the alcohol and hard drug items were selected for comparative analysis with respect to predictive patterns using HEW Impact Scales, age, and sex. It should be noted here that interpretation of the term "hard drugs" was left up to the respondents. Certainly the term can be taken to exclude alcohol, marijuana, and toxic fumes. Experience at the Loysville Youth Development Center suggests that the term "hard drugs" most predominately elicits an image of heroin injections.

Method

Subjects

The subjects were comprised of 1,689 males and females, ages 10 to 19 years old, predominantly Caucasian, who comprised a 6% systematic random sample of youth drawn from schools in one county of a multi-county Pennsylvania project (Lombardo, 1977; Truckenmiller, Skok, & Lennon, 1978). Due to missing data, 1,554 of the subjects were retained for alcohol use analysis, and 1,550 were retained for the hard drug use analysis. The groups were statistically identical at a 99.9% level of confidence with respect to predictor variables.

Procedure

Materials consisted of HEW Community Youth Program Impact Scales administered as part of the Youth Needs Survey Questionnaire package (Elliott, et. al., Note 1) given in the Pennsylvania Youth Services demonstration project (Lombardo, 1977; Truckenmiller, Skok, & Lennon, 1978). Proctors were on hand to help with any difficulties. Confidentiality was maintained by use of respondent identification numbers rather than names. A stepwise multiple

discriminant function analysis of the Impact Scales, age, and sex was run on the SRD items "Used Alcohol" and "Used Hard Drugs", each endorsed "Never", "Once or Twice", "Several Times", or "Very Often." For these analyses, the "Never" and "Once or Twice" response options were collapsed into a "Low" response category, and subjects so endorsing these items were classifeid in the Low Use Level. Subjects answering items "Several Times" comprised the Mid Level, and subjects answering "Very Often" were designated the High Level users. Both multiple stepwise discriminant function analyses were run using a BMDP statistical package (Dixon, 1981).

Results

Tables 2 and 3 show summary analyses of the stepwise multiple discriminant function analysis of Impact Scales, sex, and age vis-a'-vis SRD items "Used Alcohol" and "Used Hard Drugs" respectively. The discriminative variables successively extracted in the alcohol use analysis were: Normative Peer Pressure Towards Delinquency, Age, Youth Perceived Negative Labeling by Peers, Normlessness, Self-Esteem, and Youth Perceived Negative Labeling by Teachers. Successively extracted discriminative variables for the "Used Hard Drugs" endorsement levels were: Youth Perceived Negative Labeling by Parents; Youth Perceived Negative Labeling by Teachers; Self-Esteem; and Youth Perceived Parental Rejection. Normlessness was entered and then removed as a discriminative variable.

Insert Tables 2 and 3 about here

Table 4 shows the variable means for Low, Middle, and High alcohol use levels and for the complete sample. Here it can be seen that higher scores on the discriminative variables were associated with higher alcohol use (AU) levels. Table 5 gives the standard deviations of AU analysis variables.

Insert Tables 4 and 5 about here

Table 6 shows the variable means for Low, Middle, and High hard drug use (HDU) levels and for the complete sample. Here it can be seen that higher scores on the discriminative variables were associated with higher HDU levels. Table 7 gives the standard deviation of HDU analysis variables.

Insert Tables 6 and 7 about here

Tables 8 and 9 show cross-classification of cases into Low, Mid, and High AU and HDU response level endorsements respectively. With respect to AU level (Table 8), 59.1% of the subjects could be correctly classified via discriminatively predictive variables. With respect to HDU level (Table 9), 74.3% of the youth could be correctly classified. Only 9 of the youth described themselves as very frequent hard drug users compared to 207 youth who described themselves as very frequent users of alcohol.

Looking by rows down the first column in Table 8 for AU cross-classification, it can be seen that 67.0%, 36.5%, and 62.8% of the apriori Low, Mid, and High level alcohol use groups could be correctly identified from

predictor variables. Lookiny by columns across the last row, it can be seen that once predictions had been made (the predicted or aposteriori groups), 84.1% of those predicted into the Low AU level actually came from the corresponding apriori group; 33.2% of the subjects predicted into the Mid AU group came from the apriori Mid AU group; and 35.3% of those predicted into the High AU group came from the apriori High AU group. Considering the aposteriori High AU group, 64.7% of the cases were false positives. However, apriori High AU subjects constituted only 9.4% of all the combined aposteriori Low and Mid AU level groups. That is, on an aposteriori basis, there were only 9.4% false negatives.

Examination of Table 9 regarding Hard Drug Use level prediction shows that 74.8%, 42.1%, and 66.7% of the apriori Low, Mid, and High HDU subjects respectively could be classified as such via predictor variables. 99.6% of all youth predicted into the Low HDU group came from the Low HDU apriori group. With respect to the Mid HDU classifications, while 42.1% of the apriori cases could be correctly placed, only 3.1% of the aposteriori group were correct identifications. That is, on an aposteriori basis, there were 96.9% false positives for the Mid HDU group. The picture for the High HDU cross-classifications is much the same as for the Mid HDU cross-classifications. While 66.7% of the High HDU apriori group were correctly picked as such via discriminative variables, 6 cases in all, the correctly picked subjects were mixed in with 96% false positives for High HDU level. However, on an aposteriori basis, there were only .2% High HDU level false negatives. That is, only 3 out of 1,406 youth classified as non High HDU came from the

apriori High HDU group. Thus, there were extremely few false negatives for the aposteriori High HDU group obtained at the expense of an extremely high percentage of false positives.

Discussion

The substance use level frequency distributions and predictive patterns were very different for alcohol use as opposed to hard drug use endorsements. While 580/1,550 or 37.4% of the youth sample admitted to alcohol use several times or very often (Table 8), only 28/1,554 or 1.8% of the sample admitted to hard drug use several times or very often (Table 9). With respect to high level substance use only, the comparative frequencies were 207/1,550 or 13.4% for alcohol use and 9/1,554 or .6% of the sample for hard drug use. These results are in accord with general expectations that alcohol use is far more prevalent among youth than is hard drug use, and indicates that the youth interpreted the term "hard drugs" in a very restrictive sense.

The alcohol use rates reported by youth in this study are consistent with that found in a Pennsylvania Department of Health study (Swisher, Note 3) surveying 15,000 youth, grades 7 - 12, in 10 of the state school districts for the years 1980-1982. This study showed that 35% of the 12th graders admitted to drinking once a week and that 27% reported being drunk once a week. Such figures roughly correspond to the Mid AU level of 24% and the High AU level of 13% found in the present study considering that the response categories in the two studies are not identical. In either case, the rates are alarmingly high, especially when one considers the staggering financial, social, and physical costs associated with alcohol abuse. A brief survey should suffice.

On a national level, the cost of alcoholism was estimated at $42 billion in 1975, the last year for which such statistics are available. These costs included declines in productivity, goods, and services (U.S. Department of Health & Human Services, Note 4). A 1981 study by the Southeastern Pennsylvania Blue Cross revealed that people with alcohol problems were admitted to hospitals eight times as often as those without an alcohol problem (Lynch, 1983). According to Pennsylvania Office of Drug and Alcohol Programs, State Department of Health figures, in Pennsylvania alone, there were 19,518 alcohol-related automobile accidents reported involving 943 deaths and 18,522 injuries. Half the drivers killed were legally intoxicated (Pennsylvania Department of Transportation, Note 5). With respect to domestic violence, estimates are that 50% of domestic violence incidents, including child abuse, have a strong connection with drug or alcohol use (Lynch, 1983). Other Pennsylvania Office of Drug and Alcohol Program statistics indicate that alcohol use among school age youth has increased while the use of marijuana and other drugs has leveled off or decreased, (Lynch, 1983).

Referring now to Tables 2 and 3 showing the stepwise multiple discriminant function analysis summaries for alcohol and hard drug use levels respectively, it appears that very different social-psychological dynamics seem to be associated with alcohol use levels as opposed to hard drug use levels. From an examination of Tables 2 and 3 it can be seen that alcohol use seems very much a peer oriented activity while hard drug use seems almost exclusively associated with negative regard by adults. With respect to alienation, whereas a sense of normlessness may be involved in alcohol use, this aspect of social alienation, or any other aspect of social alienation measured by the Impact

Scales, is absent as a predictor of hard drug use. Thus, while adolescent alcohol use seems embedded in the social dynamics of peer relations, hard drug use by adolescents seems heavily associated with youth-adult conflict and disaffiliation. The social-psychological dynamics of alcohol use by youth are far more similar to results obtained in predicting general Self-Reported Delinquency (SRD) from Impact Scales, age, and sex (Truckenmiller, 1982a, Note 8) than are the social-psychological dynamics associated with hard drug use found here. A possible explanation for the difference in dynamics is that hard drug use does not have the wide social acceptance that alcohol use enjoys. It is far more expensive, and is far more likely to bring youth into more intense and serious conflict with adults and authorities than is the use of alcohol. As Ronald Banks, Director of Policy and Planning for the Office of Drug and Alcohol Programs, Pennsylvania State Department of Health put it "alcohol has become the substance of least hassle", (Lynch, 1983).

While it is not possible to establish any cause and effect relationships from this data in an experimental way, it should be remembered that the HEW model is a model of synergistic interactions, where, at a given time, the forces involved act in concert rather than in a linear cause and effect fashion. And very clearly, the social processes related to alcohol use seems different from that related to hard drug use.

There are, however, certain similarities in the prediction of alcohol and hard drug use levels. In both cases the best predictors are interpersonal relationship variables. In both cases, Youth Perceived social role access variables (Youth Perceived Access to Educational Roles and to

Occupational Roles) are conspicuously absent as predictors. The predictive predominance of interpersonal relationships with respect to alcohol and hard drug use echos findings on SRD prediction via Impact Scales, age, and sex (Truckenmiller, Note 8). In all cases, it is the human relationship variables which carry predictive power (Truckenmiller, 1978, 1932a, 1982b, 1982c, 1983a, 1983b, Note 8).

Detecting hard drug users, a caution

The fact that 66.7% of the high level hard drug users could be identified via some Impact Scales (Table 9) might provide temptation to use these scales as proxy variables for statistically identifying youth likely to be hard drug users. Several notes of caution are in order. First, the problem of false positives. While two thirds of the high level hard drug users would be identified, they would, on an aposteriori basis, be mixed in with non users at a roughly 1 to 9.5 ratio. For whatever purposes such an identification program might be mounted, about 9 out of every 10 youth would be wrongly suspect, even though only 3 in roughly 1,400 youth would be given an erroneous "clean bill of health." While no harm would come to that vast majority of youth rightly cleared, a great disservice would be done 9 out of 10 youth wrongly suspected of hard drug use. Not only might the wrongly identified youth bear a subtle or not so subtle onus of demonstrating innocence with respect to hard drug use, but they might also be suspected of other misdeeds by association. The negative labeling of these youth might then catalyze a reciprocal disaffection with authorities potentiating the liklihood of delinquent behaviors. Although the pool of suspects would be shrunk by 90% or so from the starting population, such use of Impact Scales on data collected under the conditions of this study

would constitute a violation of confidentiality, and thus a violation of contract conditions under which the information was obtained. The cautions presented here apply also to the prediction of vandalism and wanton assaultiveness (Truckenmiller, 1983a, 1983b). There is certainly no guarantee that the predictive patterns obtained in this and related studies would hold were the information gathered without the cover of respondent anonymity. As has been mentioned by this author elsewhere (Truckenmiller, 1983b) the purpose of investigations such as this one is to further understanding of the social-psychological dynamics associated with various forms of delinquency rather than to identify criminals. It is hoped that this study has contributed in some fashion to that end.

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Table 1

List of HEW Community Program Impact Scales Entered into the Stepwise Multiple Regression and Discriminant Function Analyses

1. Normlessness.
2. Societal Estrangement.
3. Control vs. Powerlessness.
4. Youth Perceived Lack of Access to Educational Roles.
5. Youth Perceived Lack of Access to Occupational Roles.
6. Youth Perceived Negative Labeling by Parents.
7. Youth Perceived Negative Labeling by Teachers.
8. Youth Perceived Negative Labeling by Peers.
9. Self-Esteem.
10. Normative Peer Group Pressure Towards Delinquency.
11. Parental Rejection.

Table 2

Summary Table for the Stepwise Multiple Discriminant Function Analysis of HEW Community Program Impact Scales, Age, and Sex vis a vis Self-Reported Alcohol Use Levels

Step Number	Variable Entered	F Value to Enter	Number of Variables	Approximate F - Statistic	Degrees of Freedom	
1	Nrmppr	121.64	1	121.64	2.00	1547.00
2	Age	130.29	2	125.92	4.00	3092.00
3	Labpeer	34.11	3	96.97	6.00	3090.00
4	Normlss	13.39	4	76.64	8.00	3088.00
5	Slf-est	8.70	5	63.35	10.00	3086.00
6	Labtch	4.60	6	53.68	12.00	3084.00

Note:

Table 3

Summary Table for the Stepwise Multiple Discriminant Function Analysis of HEW Community Program Impact Scales, Age, and Sex vis a vis Self-Reported Hard Drug Use Levels

Step Number	Variable Entered	*F* Value to Enter	Number of Variables	Approximate *F* - Statistic		Degrees of Freedom
1	LabPar	21.05	1	21.05	2.00	1551.00
2	Normlss	7.00	2	13.99	4.00	3100.00
3	LabTch	4.72	3	10.92	6.00	3098.00
4	Slf-est	4.36	4	9.30	8.00	3096.00
5	Parrej	4.38	5	8.33	10.00	3094.00
Step Number	Variable Removed	*F* Value to Remove				
6	Normlss	3.34	4	9.56	8.00	3096.00

Note:

Table 4

Variable Means for Low, Middle, and High Alcohol Use Levels for the Complete Sample

	Group			
Variable	Low AU Level	Middle AU Level	High AU Level	Complete Sample
Age	14.50	15.57	15.95	14.95
Sex	1.54	1.49	1.42	1.51
AU score	1.43	3.00	4.00	2.15
Normlss	11.92	13.27	14.71	12.62
Socest	38.90	39.01	39.88	39.06
Acced	10.48	10.34	10.00	10.38
Accop	13.57	13.10	12.82	13.36
Labpar	15.21	17.21	20.45	16.39
Labtch	15.45	17.62	21.62	16.79
Labpeer	15.87	18.65	21.34	17.34
Slfest	29.60	30.04	29.72	29.72
Nrmppr	13.54	15.36	17.47	14.50
Parrej	8.35	8.99	9.75	8.69
Control	34.25	34.48	33.02	34.14

Note: AU = Alcohol Use; for sex, 1 = male, 2 = female; Normlss = Normlessness; Socest = Societal Estrangement; Acced = Access to Educational Roles (+); Accop = Access to Occupational Roles (+); Labpar = Negative Labeling by Parents; Labtch = Negative Labeling by Teachers; Labpeer = Negative Labeling by Peers; Slfest = Self-Esteem; Nrmppr = Normative Peer Pressure Towards Delinquency; Parrej = Parental Rejection; Control = Control vs. Powerlessness scored in control direction.

Table 5

Variable Standard Deviations for Low, Middle, and High Alcohol Use Levels and the Complete Sample

	Group			
Variable	Low AU Level	Middle AU Level	High AU Level	Complete Sample
Age	1.68	1.54	1.39	1.61
Sex	.50	.50	.49	.50
AU Level	.49	.00	.00	.39
Normlss	2.84	2.67	2.59	2.76
Socest	6.66	5.67	5.97	6.34
Acced	1.39	1.35	1.41	1.38
Accop	2.30	2.40	2.62	2.37
Labpar	5.58	6.26	6.80	5.93
Labtch	6.86	6.87	8.11	7.05
Labpeer	6.02	6.38	6.45	6.16
Slfest	4.71	4.55	4.37	4.63
Nrmppr	3.47	3.59	3.52	3.51
Parrej	2.48	2.88	2.99	2.65
Control	4.17	3.94	3.84	4.07

Note: AU = Alcohol Use; for sex, 1 = male, 2 = female; Normlss = Normlessness; Socest = Societal Estrangement; Acced = Access to Educational Roles (+); Accop = Access to Occupational Roles (+); Labpar = Negative Labeling by Parents; Labtch = Negative Labeling by Teachers; Labpeer = Negative Labeling by Peers; Slfest - Self-Esteem; Nrmppr = Normative Peer Pressure Towards Delinquency; Parrej = Parental Rejection; Control = Control vs. Powerlessness scored in control direction.

Table 6

Variable Means for Low, Middle, and High Hard Drug Use Levels and across all Subjects

	Group			
Variable	Low HDU Level	Middle HDU Level	High HDU Level	Complete Sample
Age	14.94	16.00	15.22	14.96
Sex	1.51	1.47	1.44	1.51
HDU Level	1.05	3.00	4.00	1.09
Normlss	12.56	15.09	16.89	12.62
Socest	39.03	40.42	42.40	39.07
Acced	10.39	9.95	9.22	10.38
Accop	13.37	12.08	13.22	13.35
Labpar	16.26	24.00	23.44	16.40
Labtch	16.65	23.00	29.00	16.80
Labpeer	17.25	22.21	22.33	17.34
Slfest	29.71	30.18	31.11	29.73
Nrmppr	14.42	18.40	19.44	14.50
Parrej	8.65	10.91	11.78	8.70
Control	34.17	32.46	31.01	34.13

Note: HDU = Hard Drug Use; for sex, 1 = male, 2 = female; Normlss = Normlessness; Socest = Societal Estrangement; Acced = Access to Educational Roles (+); Accop = Access to Occupational Roles (+); Labpar = Negative Labeling by Parents; Labtch = Negative Labeling by Teachers; Labpeer = Negative Labeling by Peers; Slfest - Self-Esteem; Nrmppr = Normative Peer Pressure Towards Delinquency; Parrej = Parental Rejection; Control = Control vs. Powerlessness scored in the control direction.

Table 7

Variable Standard Deviations for Low, Middle, and High Hard Drug Use Levels and for the Complete Sample

	Group			
Variable	Low HDU Level	Middle HDU Level	High HDU Level	Complete Sample
Age	1.72	1.45	.97	1.71
Sex	.50	.51	.53	.50
HDU Level	.22	.00	.00	.22
Normlss	2.91	2.64	2.15	2.90
Socest	6.32	7.00	7.11	6.34
Acced	1.40	1.08	1.64	1.40
Accop	2.38	2.53	2.64	2.38
Labpar	6.08	7.60	7.12	6.11
Labtch	7.24	9.20	7.55	7.26
Labpeer	6.46	6.79	8.15	6.48
Slfest	4.63	4.70	3.41	4.63
Nrmppr	3.73	3.63	3.20	3.73
Parrej	2.66	3.46	3.53	2.68
Control	4.08	4.78	3.44	4.08

Note: HDU = Hard Drug Use; for sex, 1 = male, 2 = female; Normlss = Normlessness; Socest = Societal Estrangement; Acced = Access to Educational Roles (+); Accop = Access to Occupational Roles (+); Labpar = Negative Labeling by Parents; Labtch = Negative Labeling by Teachers; Labpeer = Negative Labeling by Peers; Slfest = Self-Esteem; Nrmppr = Normative Peer Pressure Towards Delinquency; Parrej = Parental Rejection; Control = Control vs. Powerlessness scored in the control direction.

Table 8

Classification of Cases into Low, Medium, and High Level Alcohol Use Groups from HEW Community Program Impact Scales, Age, and Sex via Multiple Stepwise Discriminant Function Analysis

Apriori Group	Percent Correct	Predicted (aposteriori) Group			Total Cases
		Low AU	Mid AU	High AU	
Low AU	67.0	650	214	106	970
Mid AU	36.5	105	136	132	373
High AU	62.8	18	59	130	207
Totals	59.1	773	409	368	1550
Aposteriori Percent Correct	59.1	84.1	33.2	35.3	

Note: AU = Self-Reported Alcohol Use Level

Table 9

Classification of Cases into Low, Medium, and High Level Hard Drug Use Groups from HEW Community Program Impact Scales, Age, and Sex via Multiple Stepwise Discriminant Function Analysis

Apriori Group	Percent Correct	Predicted (*aposteriori*) Group			Total Cases
		Low HDU	Mid HDU	High HDU	
Low HDU	74.8	1141	251	134	1526
Mid HDU	42.1	3	8	8	19
High HDU	66.7	1	2	6	9
Totals	74.3	1145	261	148	1554
Aposteriori Percent Correct	74.3	99.6	3.1	4.0	

Note: HDU = Self-Reported Hard Drug Use Level